

concurrently filed amendment, but do not enter the proposed Amendment under Rule 116 in the parent application.

Claims start on page 2.

Remarks start on page 33.

5

AMENDMENTS TO THE CLAIMS:

The listing of claims in Group XI will replace all prior versions, and listings, of claims in the application.

10 Please retain claims 115-121, 145-150, 159-183, 187-191 and 226-242 in the application. Please cancel claims 1-114, 122-144, 151-158, 184-186, 192-225 and 243-285.

IN THE CLAIMS:

1-114 (cancel).

15

115. (Currently amended) In a method of transmitting an ~~unencrypted~~ message[[₅]] from a sender to a destination address through a server displaced from the destination address and of authenticating the message, the steps at the server of:

receiving the ~~unencrypted~~ message from the sender,

transmitting the ~~unencrypted~~ message, ~~without any encryption~~, to the destination

20

address,

receiving at the server an indication from the destination address that the message has been received at the destination address from the server,

~~without encrypting the unencrypted address, providing at the server a digital~~

~~signature of the unencrypted message while retaining the message in addition to~~
~~the digital signature of the message~~ maintaining the message in its original form and
additionally providing a digital signature of the message in the original form of the
message, and

5 transmitting to the sender the ~~unencrypted~~ message in its original form, and the
digital signature of the ~~unencrypted~~ message in the original form of the message, for
storage by the sender.

10 116. (Currently amended) In a method as set forth in claim 115, the step at the
server of:

discarding the ~~unencrypted~~ message and the digital signature of the ~~unencrypted~~
message after the transmission of the ~~unencrypted~~ message and the digital signature of
the ~~unencrypted~~ message to the sender and before any authentication of the ~~unencrypted~~
message.

15 117. (Currently amended) In a method as set forth in claim 116, the steps at the
server of:

receiving from the sender a copy of the ~~unencrypted~~ message and the digital
signature of the ~~unencrypted~~ message before any authentication of the ~~unencrypted~~
20 message, but after the transmission of the message to the destination address,

generating digital fingerprints of the ~~unencrypted~~ message, and the digital
signature of the message, received from the sender ~~of the message~~,

comparing the digital fingerprints, and
authenticating the ~~unencrypted~~ message on the basis of the results of the
comparison.

5 118. (Currently amended) In a method as set forth in claim 116, the steps at the
server of:

~~without encrypting the unencrypted message, providing at the server an~~
attachment including the identity of the sender and the identity and address of the server
and the identity and the destination address of a recipient, ~~all as received by the server~~
10 ~~from the agent destination address,~~

~~generating a digital signature of the attachment without encrypting the~~
~~unencrypted message while retaining the attachment in addition to the digital signature of~~
~~the attachment~~ maintaining the attachment in the original form and additionally providing
a digital signature of the attachment in the original form of the attachment, and

15 ~~without encrypting the unencrypted message, transmitting to the sender the~~
attachment in the original form of the attachment, and the digital signature of the
attachment in the original form of the attachment, for storage by the sender including the
~~identity of the sender, the identity and address of the server and the identity and~~
~~destination address of the recipient and~~ transmitting to the sender the attachment and the
20 digital signature of the attachment, ~~all as received by the server from the destination~~
~~address,~~ at the same time as the transmission of the message, and the digital signature of
the message, to the sender.

119. (Currently amended) In a method as set forth in claim 115, the steps at the server of:

receiving an attachment from the destination address ~~without encrypting the unencrypted message,~~

5 ~~without encrypting the unencrypted message, providing at the server a digital signature of the attachment while retaining the attachment in addition to the digital signature of the attachment, and~~ maintaining the attachment in its original form and additionally providing a digital signature of the attachment in the original form of the attachment, and

10 ~~without encrypting the unencrypted message, transmitting to the sender the attachment in the original form of the attachment, and the digital signature of the attachment in the original form of the attachment, for storage by the sender and the digital signature of the attachment without encrypting the unencrypted message.~~

15 120. (Currently amended) In a method as set forth in claim 115, the steps at the server of:

~~without encrypting the unencrypted message, receiving from the sender copies of the unencrypted message and the attachment and the digital signatures of the unencrypted message and the attachment,~~

20 ~~without encrypting the unencrypted message, generating digital fingerprints of the unencrypted message and the digital signature of the unencrypted message and digital fingerprints of the attachment and~~ ~~[[of]] the digital signature of the attachment, and~~

comparing the digital fingerprints of the ~~unencrypted~~ message and ~~[[of]]~~ the digital signature of the ~~unencrypted~~ message, and comparing the digital fingerprints of the attachment and the digital signature of the attachment, to authenticate the ~~unencrypted~~ message and the attachment.

5

121. (Currently amended) In a method as set forth in claim 119, the steps at the server of:

~~without encrypting the unencrypted message,~~ receiving the ~~unencrypted~~ message, and the digital signature of the ~~unencrypted~~ message, at the server from the sender, and

10 authenticating the ~~unencrypted~~ message at the server on the basis of the ~~unencrypted~~ message~~[[,]]~~, and the digital signature of the message, received by the server from the sender.

122-144 (cancel).

15

145. (Currently amended) A method of transmitting an ~~unencrypted~~ message from a sender to a destination address for a recipient through a server displaced from the destination address and of authenticating the message, including the steps at the server of,

receiving the ~~unencrypted~~ message from the sender ~~without encrypting the~~

20 ~~unencrypted message,~~

transmitting the ~~unencrypted~~ message to the destination address through a path including servers between the server and the destination address, and

transmitting to the sender the ~~unencrypted~~ message and the path of transmission of the ~~unencrypted~~ message between the server and the destination address.

146. (Currently amended) A method as set forth in claim 145 wherein

5 the server receives from the sender the ~~unencrypted~~ message and the path of transmission of the ~~unencrypted~~ message between the server and the destination address and wherein

the server authenticates the ~~unencrypted~~ message on the basis of the ~~unencrypted~~ message and the path of transmission of the ~~unencrypted~~ message between the server and
10 the destination address ~~without encrypting the unencrypted message.~~

147. (Currently amended) A method as set forth in claim 145 wherein

the server does not retain the ~~unencrypted~~ message and the path of transmission of the message between the server and the destination address after it transmits to the sender
15 the ~~unencrypted~~ message, ~~to the sender~~ and the path of transmission of the message,
before any authentication of the ~~unencrypted~~ message.

148. (Currently amended) A method as set forth in claim 145 wherein

the destination address is one of a plurality of destination addresses receiving the
20 ~~unencrypted~~ message from the server and wherein

the server distinguishes each of the destination addresses in the plurality in the transmission of the ~~unencrypted~~ message to the destination addresses in the plurality ~~without encrypting the unencrypted message.~~

5 149. (Currently amended) A method as set forth in claim 145 wherein
the path of transmission of the ~~unencrypted~~ message between the server and the destination address includes the identity and address of the server and the identity of ~~[[a]]~~ ~~[[the]]~~ recipient at the destination address.

10 150. (Currently amended) A method as set forth in claim 146 wherein
the server does not retain the ~~unencrypted~~ message and the path of the
transmission of the message between the server and the destination address after it
transmits to the sender the ~~unencrypted~~ message, ~~to the sender and the path of~~
transmission of the message between the server and the destination address, before any
15 authentication of the ~~unencrypted~~ message and wherein

the destination address is one of a plurality of destination addresses receiving the ~~unencrypted~~ message from the server and wherein

the server distinguishes each of the destination addresses in the plurality in the transmission of the ~~unencrypted~~ messages to the destination addresses in the plurality
20 ~~without encrypting the unencrypted message,~~ and wherein

the message has an attachment and wherein

the attachment identifies the path of transmission of the ~~unencrypted~~ message~~[[s]]~~ between the server and the destination address~~[[es]]~~ ~~without encrypting the unencrypted message.~~

5 151-158 (cancel.

159. (Currently amended) A method of providing a delivery at a server of an ~~unencrypted~~ electronic message from the server to a destination address and of authenticating the electronic message, including the steps at the server of:

receiving at the server the ~~unencrypted~~ electronic message from a sender for
10 transmission by the server to the destination address ~~without encrypting the unencrypted electronic message,~~

transmitting the ~~unencrypted~~ electronic message from the server to the destination address via a protocol selected from a group consisting of an SMTP protocol and an ESMTP protocol ~~without encrypting the unencrypted electronic message,~~ and

15 receiving at the server the transmission of the electronic message between the server and the destination address via the selected one of the SMTP and ESMTP protocols ~~without encrypting the unencrypted electronic message.~~

160. (Currently amended) A method as set forth in claim 159, including the
20 step at the server of:

~~without encrypting the unencrypted electronic message,~~ including, in the transmission between the server and the destination address via the selected one of the

SMTP and ESMTP protocols, the identity of the sender, the identity and address of the server and the destination address.

161. (Currently amended) A method as set forth in claim 159, including the steps at the server of:

providing a transmission of the ~~unencrypted~~ electronic message from the server to the sender ~~without encrypting the unencrypted electronic message,~~

including, in the transmission of the message from the server to the sender, additionally a digital signature of the ~~unencrypted~~ electronic message ~~without encrypting~~ the ~~unencrypted electronic message while retaining the electronic message in addition to~~ the digital signature of the electronic message.

162. (Currently amended) A method as set forth in claim 159, including the step at the server of:

~~without encrypting the unencrypted electronic message,~~ recording, in the transmission between the server and the destination address via the selected one of the SMTP and ESMTP protocols, the time for the transmission of the ~~unencrypted~~ electronic message from the server to the destination address and the time for the reception of the ~~unencrypted~~ electronic message at the destination address.

163. (Currently amended) A method as set forth in claim 160, including the steps at the server of:

including, in the transmission of the ~~unencrypted~~ electronic message between the server and the sender via the selected one of the SMTP and ESMTP protocols, a digital

signature of the electronic message ~~transmission of the unencrypted electronic message~~

~~between the server and the destination address via the selected one of the SMTP and~~

5 ~~ESMTP protocols without encrypting the unencrypted electronic message while retaining~~

~~the electronic message in addition to the digital signature of the electronic message, and~~

recording, in the transmission between the server and the destination address via the selected one of the SMTP and ESMTP protocols, the time for the transmission of the ~~unencrypted~~ electronic message from the server to the destination address and the time

10 for the ~~receipt~~ reception of the electronic message at the destination address.

164. (Currently amended) A method as set forth in claim 159, including the step at the server of:

including, in the transmission of the ~~unencrypted~~ electronic message between the
15 server and the destination address via the selected one of the SMTP and ESMTP
protocols, the status of the delivery of the ~~unencrypted~~ electronic message at the
destination address from the server ~~without encrypting the unencrypted electronic~~
~~message.~~

20 165. (Currently amended) A method as set forth in claim 159, including the step
at the server of:

receiving at the server a delivery status notification relating to the status of the delivery of the ~~unencrypted~~ electronic message at the destination address and the delivery of the ~~unencrypted~~ electronic message from the destination address to a recipient ~~without encrypting the unencrypted electronic message.~~

5

166. (Currently amended) In a method of verifying at a first server a delivery of an ~~unencrypted~~ electronic message to a destination server for a recipient, the steps at the first server of:

transmitting the ~~unencrypted~~ electronic message from the first server to the
10 destination server via a protocol selected from the group consisting of an SMTP protocol and an ESMTP protocol,

receiving, at the first server from the destination server, the transmission between the first server and the destination server of the ~~unencrypted~~ electronic message via the selected one of the SMTP and ESMTP protocols ~~without encrypting the unencrypted~~
15 ~~electronic message,~~ and

transmitting from the first server to the sender the ~~unencrypted~~ electronic message and the transmission between the first server and the destination server via the selected one of the SMTP and ESMTP protocols ~~without encrypting the unencrypted electronic message protocols.~~

20

167. (Currently amended) In a method as set forth in claim 166, the step at the first server of:

" "

~~without encrypting the unencrypted electronic message,~~ transmitting from the first server to the sender the ~~unencrypted~~ electronic message at the time of the completion of the transmission of the ~~unencrypted~~ electronic message between the first server and the destination server via the selected one of the SMTP and ESMTP protocols.

5

168. (Currently amended) In a method as set forth in claim 166, the step at the first server of:

~~without encrypting the unencrypted electronic message,~~ discarding the electronic message at the first server after the transmission of the ~~unencrypted~~ electronic message via the selected one of the ~~(SMTP)~~ [[SMTP]] and ~~(ESMTP)~~ [[ESMTP]] protocols by the first server to the sender.

169. (Currently amended) In a method as set forth in claim 166, the steps at the first server of:

15 ~~without encrypting the unencrypted electronic message,~~ maintaining the electronic message at the first server and additionally providing at the first server a digital signature of the ~~unencrypted~~ electronic message while retaining the electronic message in addition to the digital signature of the electronic message, and

20 ~~without encrypting the unencrypted electronic message,~~ transmitting the digital signature of the ~~unencrypted~~ electronic message from the first server to the sender at the time of the transmission of the ~~unencrypted~~ electronic message from the first server to the sender.

170. (Currently amended) In a method as set forth in claim 169, the steps at the first server of:

~~without encrypting the unencrypted electronic message~~ transmitting from the first server to the sender the ~~unencrypted~~ electronic message after the transmission of the

5 ~~unencrypted~~ electronic message between the first server and the destination server via the selected one of the SMTP and ESMTP protocols, and

~~without encrypting the unencrypted electronic message, releasing~~ disposing of the ~~unencrypted~~ electronic message at the first server after the transmission of the

~~unencrypted~~ electronic message via the selected one of the SMTP and ESMTP protocols
10 by the first server to the sender but before the authentication of the message.

171. (Currently amended) In a method as set forth in claim 170, the step at the first server of:

~~without encrypting the unencrypted electronic message,~~ transmitting between the

15 first server and the destination server the identity of the sender, the identity and address

of the first server and the identity and address of the destination server and the time of the

receipt of the ~~unencrypted~~ electronic message by the first server and the time of the

transmission to the first server from the destination server of the identity of the sender,

the identity and address of the first server and the identity and address of the destination

20 server.

172. (Currently amended) In a method as set forth in claim 166, the step at the first server of:

~~without encrypting the unencrypted electronic message~~, receiving at the first server from the destination server a delivery status notification indicating the status of the delivery of the ~~unencrypted~~ electronic message from the first server to the destination server and the time of the transmission of the delivery status notification by the destination server to the first server.

173. (Currently amended) In a method of verifying at a first server an ~~unencrypted~~ message received by the first server from a sender and transmitted by the first server to a destination server for a recipient, the steps at the first server of:

~~without encrypting the unencrypted electronic message~~ receiving at the first server from the destination server an attachment including transmissions between the first server and the destination server relating to the ~~unencrypted electronic~~ message from the sender, the transmissions between the first server and the destination server being provided via a protocol selected from the group consisting of an SMTP protocol and an ESMTP protocol,

~~without encrypting the unencrypted electronic message~~, transmitting from the first server to the sender the ~~unencrypted electronic~~ electronic message and the attachment including the transmissions between the first server and the destination server via the selected one of the SMTP protocol and the ESMTP protocol,

" "

~~without encrypting the unencrypted electronic message,~~ transmitting from the sender to the first server the ~~unencrypted electronic~~ electronic message and the attachment including the transmissions via the selected one of the SMTP and ESMTP protocols, and

5 authenticating the message on the basis of the ~~unencrypted electronic~~ electronic message, and the attachment including the transmission via the selected one of the SMTP and ESMTP protocols, received by the first server from the sender.

174. (Currently amended) In a method as set forth in claim 173, wherein:

10 the attachment includes transmissions between servers intermediate[[;]] the first server and the destination server.

175. (Currently amended) In a method as set forth in claim 173, the step at the first server of:

15 ~~without encrypting the unencrypted electronic message, removing~~ disposing of the ~~unencrypted electronic~~ message from the first server when the first server transmits to the sender the ~~unencrypted electronic~~ electronic message and the attachment, including the transmissions between the first server and the destination server via the selected one of the SMTP protocol and the ESMTP protocol, before the authentication of the message

20 and the attachment.

176. (Currently amended) In a method as set forth in claim 173~~5~~, the steps at the first server of:

~~without encrypting the unencrypted electronic message~~ receiving at the first server from the destination server the transmission of the identity of the sender, the identity and address of the first server and the identity and address of the destination server via the protocol selected from the group consisting of the SMTP protocol and the ESMTP protocol, and

~~without encrypting the unencrypted electronic message~~ transmitting from the first server to the sender the identity of the sender, the identity and address of the first server and the identity and address of the destination server at the time of the transmission from the first server to the sender of the ~~unencrypted~~ message and the transmission between the first server and the destination server via the protocol selected from the group consisting of the SMTP protocol and the ESMTP protocol, the disposition of the message and the attachment occurring before the authentication of the message and the attachment.

177. (Currently amended) In a method as set forth in claim 173, the steps at the first server of

~~without encrypting the unencrypted electronic message~~, providing at the first server digital signatures of the ~~unencrypted electronic~~ message and ~~[[of]]~~ the attachment~~[[,]]~~ including the transmission between the first server and the destination server relating to the ~~unencrypted electronic~~ message from the sender, and

~~without encrypting the unencrypted electronic message,~~ transmitting from the first server to the sender the ~~unencrypted electronic message~~ and the attachment and the digital signatures of the ~~unencrypted electronic message~~ and [[of]] the attachment.

5 178. (Currently amended) In a method as set forth in claim 173, the steps at the first server of:

~~without encrypting the unencrypted electronic message,~~ transmitting from the first server to the sender the identity of the sender, the identity and address of the first server and the identity and address of the destination server at the time that the ~~unencrypted~~
10 ~~electronic~~ message and the transmissions between the first server and the destination server are transmitted from the first server to the sender,

~~without encrypting the unencrypted electronic message,~~ transmitting from the sender to the first server the information transmitted from the first server to the sender,
and

15 authenticating the ~~unencrypted electronic~~ message at the first server on the basis of ~~the information transmitted from the sender to the first server and representing the~~
information previously transmitted from the first server to the sender and thereafter
transmitted from the sender to the first server.

20 179. (Currently amended) A method of verifying delivery at a first server of an ~~encrypted~~ electronic message to a destination server for a recipient, including the steps at
the first server of:

receiving at the first server the ~~unencrypted~~ electronic message from a message sender for transmission of the electronic message to the destination server ~~without encrypting the unencrypted electronic message,~~

~~without encrypting the unencrypted electronic message,~~ transmitting the

5 ~~unencrypted~~ electronic message from the first server to the destination server via a protocol selected from a group consisting of an SMTP protocol and an ESMTP protocol,

~~without encrypting the unencrypted electronic message,~~ receiving at the first server the transmissions between the first server and the destination server via the selected one of the SMTP and ESMTP protocols, and

10 ~~without encrypting the unencrypted electronic message~~ transmitting from the first server to the sender the ~~unencrypted~~ electronic message and at least a particular portion of the transmission between the first server and the destination server via the selected one of the SMTP and ESMTP protocols.

15 180. (Currently amended) A method as set forth in claim 179 wherein the ~~unencrypted~~ electronic message and the at least particular portion of the transmissions via the selected one of the SMTP and ESMTP protocols to the sender are provided by the sender to the first server ~~without encrypting the unencrypted electronic message,~~ and wherein

20 the ~~unencrypted~~ electronic message is authenticated by the first server on the basis of the ~~unencrypted~~ electronic message and the at least particular portion of the transmissions from the sender to the first server.

181. (Currently amended) A method as set forth in claim 179 wherein

the electronic message is ~~retained~~ maintained at the first server and additionally a

digital signature is provided of the ~~unencrypted~~ electronic message at the first server

~~without encrypting the unencrypted electronic message while retaining the electronic~~

5 ~~message in addition to the digital signature of the electronic message~~ and wherein

the digital signature is transmitted from the first server to the sender with the message and the at least particular portion of the transmission[[s]] between the first server and the destination server ~~without encrypting the unencrypted electronic message~~
via the selected one of the SMTP and ESMTP protocols and wherein

10 the digital signature is thereafter provided by the sender to the first server with the ~~unencrypted~~ electronic message and the at least particular portion of the transmission via the selected one of the SMTP and ESMTP protocols ~~without encrypting the unencrypted electronic message.~~

15 182. (Currently amended) A method as set forth in claim 180 wherein

~~without encrypting the unencrypted electronic message,~~ a digital signature of the ~~unencrypted~~ electronic message and a digital signature of the electronic transmission provided via the selected one of the SMTP and ESMTP protocols are produced at the first server and are transmitted to the sender with the ~~unencrypted~~ electronic message and the
20 electronic transmissions provided via the selected one of the SMTP and ESMTP protocols and wherein

the digital signatures and the ~~unencrypted~~ electronic message and the at least particular portion of the transmission via the selected one of the SMTP and ESMTP protocols to the sender are thereafter provided by the sender to the first server ~~without encrypting the unencrypted electronic message~~ and wherein

5 ~~without encrypting the unencrypted electronic message~~, digital fingerprints are produced at the first server from the ~~unencrypted~~ electronic message, and the digital signature of the ~~unencrypted~~ electronic message, provided by the sender to the first server and wherein

the ~~unencrypted~~ electronic message is authenticated at the first server by
10 establishing an identity between the digital fingerprints produced at the first server.

183. (Currently amended) A method of verifying at a first server the delivery of an ~~unencrypted~~ electronic message from the first server to a destination server including the steps at the server of:

15 ~~without encrypting the unencrypted electronic message~~, receiving at the first server the ~~unencrypted~~ electronic message from a message sender for transmission to the destination server,

~~without encrypting the unencrypted electronic message~~, transmitting the electronic message from the first server to the destination server,

20 ~~without encrypting the unencrypted electronic message~~, receiving at the first server ~~[[the]]~~ an electronic transmission between the first server and the destination

server via a protocol selected from the group consisting of the SMTP protocol and the ESMTP protocol,

~~without encrypting the unencrypted electronic message,~~ transmitting from the first server to the sender the ~~unencrypted~~ electronic message and an ~~unencrypted~~ [[the]]

5 electronic transmission between the first server and the destination server ~~in~~ via the selected one of the SMTP and ESMTP protocols,

~~without encrypting the unencrypted electronic message,~~ receiving at the first server from the sender the ~~unencrypted~~ electronic message and the ~~unencrypted~~ electronic transmission between the first server and the destination server via the selected

10 one of the SMTP and ESMTP protocols, and

authenticating the electronic message at the first server on the basis of the electronic message received by the first server from the sender and the electronic transmission~~[[s]]~~ received by the first server from the sender.

15 184-186 (cancel).

187. (Currently amended) A method as set forth in claim 163, including the steps of:

~~without encrypting the unencrypted electronic message,~~ transmitting from the sender to the server the ~~unencrypted~~ electronic information transmitted from the server to the sender, and

20

authenticating the ~~unencrypted~~ electronic message on the basis of the information transmitted from the sender to the server.

188. (Currently amended) A method as set forth in claim 163, including the

5 steps at the server of:

~~without encrypting the unencrypted electronic message, providing a digital signature of the unencrypted electronic message while retaining~~ maintaining the electronic message in and additionally providing ~~to a digital signature of the electronic message,~~ and maintaining the electronic attachment and additionally providing a digital
10 signature of ~~an unencrypted~~ the electronic attachment including the electronic transmissions between the server and the destination server via the selected one of ~~[[the]]~~ SMTP and ESMTP ~~[[the]]~~ protocols ~~while retaining the electronic attachment in addition to the digital signature of the electronic attachment, and~~

~~without encrypting the unencrypted electronic message,~~ transmitting the digital
15 signature of the ~~unencrypted~~ electronic message₁ and the digital signature of the electronic attachment₁ from the server to the sender₁ at the same time that the ~~unencrypted~~ electronic message and the ~~unencrypted~~ electronic attachment are transmitted from the server to the sender.

20 189. (Currently amended) A method as set forth in claim 173, including the steps at the first server of:

generating at the first server a digital signature of the unencrypted electronic message and a digital signature of the unencrypted electronic attachment including the transmission between the first server and the destination server via the selected one of the SMTP and ESMTP protocols without encrypting the unencrypted while retaining
5 maintaining the electronic message in and additionally providing to the digital signature of the electronic message and maintaining the electronic attachment and additionally providing the digital signature of the electronic attachment, and

transmitting from the first server to the sender the unencrypted electronic message and the unencrypted electronic attachment and the digital signatures of the unencrypted
10 electronic message and the unencrypted electronic attachment without encrypting the unencrypted electronic message.

190. (Currently amended) A method as set forth in claim 173, including the steps at the first server of:

15 ~~without encrypting the unencrypted electronic message,~~ maintaining the electronic message and additionally providing a digital signature of the unencrypted electronic message, and maintaining the electronic attachment a digital signature of the unencrypted
~~electronic attachment~~ including the transmission between the first server and the destination server via the selected one of the SMTP and ESMTP protocols while
20 ~~retaining the electronic message in addition to the~~ and additionally providing a digital signature of the electronic attachment and while retaining the electronic attachment in addition to the digital signature of the electronic attachment, and

~~without encrypting the unencrypted electronic message, before any authentication of the unencrypted electronic message,~~ transmitting the digital signatures of the electronic message and of the electronic attachment from the first server to the sender at the same time as the transmission from the first server to the sender of the ~~unencrypted~~ electronic message and the ~~unencrypted~~ electronic attachment including the transmission via the selected one of the SMTP and ESMTP protocols.

191. (Currently amended) A method as set forth in claim 189, including the steps at the first server of:

~~without encrypting the unencrypted electronic message,~~ transmitting from the sender to the first server the ~~unencrypted~~ electronic message and the digital signature of the ~~unencrypted~~ electronic message and the ~~unencrypted~~ electronic attachment and the digital signature of the ~~unencrypted~~ electronic attachment including the transmission[[s]] between the first server and the destination server via the selected one of the SMTP and ESMTP protocols, and

authenticating the message on the basis of the digital signatures, and the ~~unencrypted~~ electronic message and the ~~unencrypted~~ electronic attachment, transmitted from the sender to the first server via the selected one of the SMTP and ESMTP protocols.

192-225 (cancel).

226. (Currently amended) In a method of authenticating a message provided by a sender and transmitted to a destination server by a second server displaced from the sender and the destination server, the steps at the second server of:

providing an electronic attachment transmitted between the second server and the destination server via a selected one of SMTP and ESMTP protocols, and
5 transmitting the electronic attachment from the second server to the sender.

227. (Currently amended) In a method as set forth in claim 226, the steps at the second server of:

10 maintaining the electronic attachment in its original state, and additionally
providing a digital signature of the electronic attachment, at the second server, and
transmitting the digital signature[[s]] of the electronic attachment from the second
server to the sender at the time of transmitting the electronic attachment from the second
server to the sender.

228. (Currently amended) In a method as set forth in claim 227, the steps at the second server of:

receiving the electronic attachment, and the digital signature of the electronic
attachment, at the second server from the sender, and
20 authenticating the electronic attachment at the second server on the basis of the
electronic attachment, and the digital signature ~~received by the second server from the~~
~~sender~~ of the electronic attachment, received by the second server from the sender.

229. (Currently amended) In a method as set forth in claim 227, the steps at the second server of:

receiving the electronic attachment, and the digital signature of the electronic attachment, at the second server from the sender,

5 providing at the second server digital fingerprints of the electronic attachment, and the digital signature ~~received at the second server from the sender of the electronic~~ attachment, received at the second server from the sender, and

comparing the digital fingerprints to authenticate the electronic attachment.

10 230. (Currently amended) In a method of authenticating a message provided by a sender and transmitted to a destination server by a second server displaced from the sender and the destination server, the steps at the second server of:

providing an electronic attachment including the identity and address of the sender and the identity and address of the second server and the identity and address of
15 the destination server, and

transmitting the electronic attachment from the second server to the sender.

231. (Currently amended) In a method as set forth in claim 230 wherein
the electronic attachment includes the address and identity of intermediate stations
20 receiving the electronic attachment in the transmission of the ~~message~~ electronic attachment between the second server and the destination server.

232. (Currently amended) In a method as set forth in claim 230, the steps at the second server of:

maintaining the electronic attachment in its original state, and additionally
providing a digital signature of the electronic attachment, at the second server ~~while~~
5 ~~retaining the attachment in addition to the digital signature of the attachment~~, and
transmitting the digital signature of the attachment from the second server to the
sender[[,]] at the time of transmitting the attachment from the second server to the sender.

233. (Currently amended) In a method as set forth in claim 231, the steps at the
10 second server of:

maintaining the electronic attachment in its original state, and additionally
providing a digital signature of the attachment, at the second server ~~while retaining the~~
~~attachment in addition to the digital signature of the attachment~~, and
transmitting the digital signature of the attachment from the second server to the
15 sender[[,]] at the time of transmitting the attachment from the second server to the sender.

234. (Currently amended) In a method as set forth in claim 232, the steps at the second server of:

receiving the attachment, and the digital signature of the attachment, at the second
20 server from the sender, and

authenticating the attachment at the second server on the basis of the attachment,
and the digital signature of the attachment, received by the second server from the sender
of the attachment.

5 235. (Currently amended) In a method as set forth in claim 233, the step[[s]] at
the second server of:

authenticating the attachment at the second server on the basis of the attachment
and the digital signature of the attachment, received by the second server from the sender
of the attachment.

10 236. (Currently amended) In a method as set forth in claim 232, the steps at the
second server of:

receiving at the second server the attachment, and the digital signature ~~at the~~
~~second server of the attachment, received by the second server~~ from the sender,

15 providing at the second server digital fingerprints of the attachment, and the digital
signature of the attachment, received at the second server from the sender ~~of the~~
attachment, and

comparing the digital fingerprints at the second server to authenticate the
attachment.

20 237. (Currently amended) In a method as set forth in claim 233, the steps at the
second server of:

receiving the attachment, and the digital signature of the attachment, at the second server from the sender,

providing at the second server digital fingerprints of the attachment, and ~~[[of]]~~ the digital signature of the attachment, received at the second server from the sender ~~of the attachment~~, and

comparing the digital fingerprints to authenticate the attachment.

238. (Currently amended) In a method of ~~verifying~~ authenticating at a server ~~[[a]]~~ an electronic message and the delivery of ~~[[an]]~~ the electronic message to a destination address, the steps at the server of:

transmitting the electronic message between the server and the destination address, receiving at the server the path of transmission of the message between the server and the destination address, the path including servers between the server and the destination address, and

transmitting to the sender the electronic message and the path of transmission of the electronic message between the server and the destination ~~[[or]]~~ address.

239. (Currently amended) In a method as set forth in claim 238 wherein the server does not retain the message or the path of transmission of the message between the server and the destination address after the server transmits to the sender the message and the path of transmission of the message between the server and the destination address.

240. (Currently amended) In a method as set forth in claim 238 wherein
the server receives from the sender the message and the path of transmission of the
message between the server and the destination address and wherein

the server authenticates the message on the basis of the receipt by the server from
5 the sender of the message[[;]] and the path of transmission of the message between the
server and the destination address, ~~received by the server from the sender.~~

241. (Currently amended) In a method as set forth in claim 240 wherein

the server maintains the message in its original form and additionally provides a
10 digital signature of the message ~~while retaining the message in addition to the digital~~
~~signature of the message~~ and transmits the digital signature with the message to the
sender and wherein

the server receives from the sender the message and the digital signature of the
message and wherein

15 the server provides digital fingerprints of the message and the digital signature of
the message and compares the digital fingerprints to authenticate the message.

242. (Currently amended) In a method as set forth in claim ~~240~~239 wherein

the server maintains the path of transmission of the message in its original form
20 and additionally provides a digital signature of the path of transmission of the message
between the server and the destination address ~~while retaining the path of transmission of~~

" "

~~the message in addition to the digital signature of the path of transmission~~ and transmits

the digital signature to the sender with the path of transmission and wherein

the server receives from the sender the path of transmission and the digital
signature of the path of transmission and wherein

- 5 the server provides digital fingerprints of the path of transmission and the digital
signature of the path of the transmission and compares the digital fingerprints to
authenticate the message.

243-285 (cancel).